

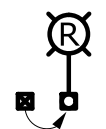
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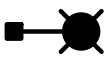
The first two steps are relatively straightforward. The third step involves identifying the specific components of the system that are most likely to cause problems. This can be done by reviewing the system's design documentation, conducting interviews with users, or performing a detailed analysis of the system's behavior. Once the components have been identified, the next step is to develop a plan for testing each component. This plan should specify the test cases to be used, the expected results, and the criteria for passing or failing the tests.


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
ILLUMINATION LEGEND

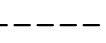
- 


RELOCATED LIGHT STANDARD ONTO NEW FOUNDATION.  
(REMOVE EXISTING FOUNDATION)
- 

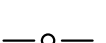
EXISTING LIGHT STANDARD TO REMAIN.
- 

RELOCATED CONCRETE HANDHOLE
- 

EXISTING CONCRETE HANDHOLE TO BE REMOVED AND RELOCATED
- 

CAST IRON JUNCTION BOX
- 

EXISTING CONDUIT IN TRENCH TO REMAIN
- 

PROPOSED 2" RMC IN TRENCH WITH 3 #2, 1 #8 GND
- 

PROPOSED 2" RMC IN STRUCTURE WITH 3 #2, 1 #8 GND

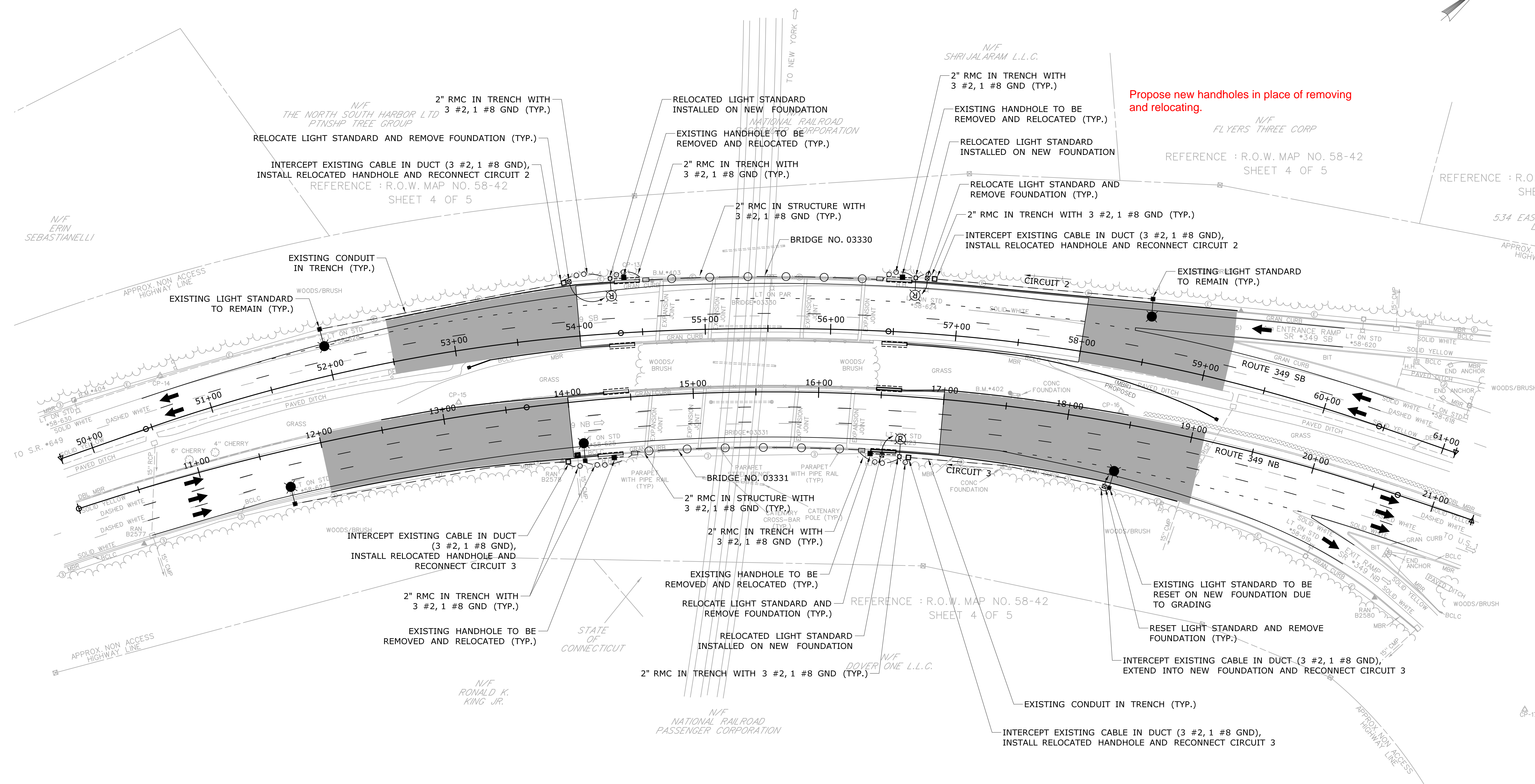
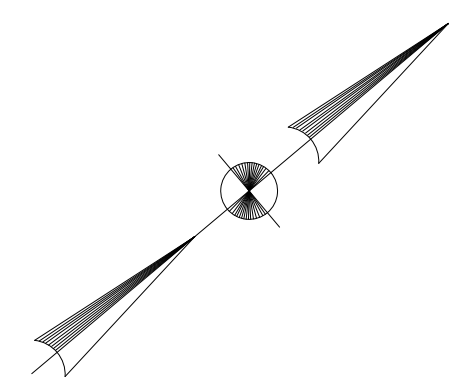
GENERAL NOTES

1. THE CONTRACTOR SHALL ORGANIZE HIS WORK SO THAT ANY PORTION OF THE ROADWAY WHICH HAS EXISTING ILLUMINATION AND IS OPEN FOR USE REMAINS LIGHTED. THE LIGHTING MAY CONSIST OF: 1) EXISTING LIGHTING, 2) NEW LIGHTING, 3) TEMPORARY LIGHTING, OR ANY COMBINATION OF THE ABOVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO STAGE THE INSTALLATION OF NEW LIGHTING AND SERVICE CABINETS SO THAT ALL ROADWAYS WITH EXISTING ILLUMINATION ARE CONTINUOUSLY LIGHTED. IF IT IS NECESSARY TO INSTALL TEMPORARY POLES, LIGHTS OR CIRCUITRY, THAT WORK SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER PRIOR TO INSTALLATION, AND WILL BE PAID FOR AT THE BID UNIT PRICE FOR THESE ITEMS. WHERE INSTALLED, TEMPORARY LIGHTING SHALL BE SPACED SO AS TO MAINTAIN EXISTING ROADWAY LIGHTING AND UNIFORMITY LEVELS. THE CONTRACTOR SHALL MAINTAIN ALL LIGHTING THROUGHOUT THE DURATION OF THE PROJECT. SEE SECTION 10.00 FOR SPECIFIC REQUIREMENTS.
2. ALL ELECTRICAL WORK SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, CONNECTICUT STANDARD SPECIFICATIONS, AND WHERE APPLICABLE, UTILITY COMPANY REGULATIONS.
3. CONDUCTORS SHALL BE COPPER INSULATION TYPE XHHW AND RATED FOR 600 VOLTS. INSULATION SHALL BE CORED CROSS LINKED POLYETHYLENE (XLP). THREE PHASE CIRCUIT COLORS SHALL BE AS FOLLOWS: BLUE, BLACK, RED.
4. INSTALL ONE NUMBER 8 BARE COPPER GROUNDING CONDUCTOR THROUGHOUT ALL LIGHTING CIRCUITS.
5. LOCATION OF EXISTING ILLUMINATION ON PLANS IS APPROXIMATE.
6. TAPE ALL UNUSED CONDUCTORS.
7. THE CONTRACTOR SHALL ABIDE BY THE CONNDOT LOCKOUT/TAGOUT PROCEDURES WHEN ACCESS TO A CIRCUIT IS REQUIRED. THE CONTRACTOR SHALL CONTACT THE DISTRICT ELECTRICAL SUPERVISOR AT TELEPHONE (860) 537-8942, WHEN ACCESS TO A CIRCUIT IS REQUIRED.
8. IN AREAS WHERE EXISTING LIGHT STANDARDS ARE TO BE REMOVED, EXISTING UNDERGROUND CABLE IN DUCT OR NON-METALLIC SHEATHED CABLE WHICH WILL NO LONGER BE USED, SHALL BE DISCONNECTED AND ABANDONED IN PLACE.
9. PRIOR TO TRENCHING THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AND HAVE ALL EXISTING UNDERGROUND ELECTRICAL FACILITIES PROPERLY MARKED OUT INCLUDING BUT NOT LIMITED TO: TRAFFIC SIGNAL AND INTERCONNECT CABLES, INCIDENT MANAGEMENT SYSTEM AND FIBER OPTIC CABLES, AND EXISTING ILLUMINATION CIRCUITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ALL EXISTING FACILITIES DAMAGED BY HIS TRENCHING OPERATION.
10. LIGHT STANDARD FOUNDATIONS SHALL BE INSTALLED 4' FROM EDGE OF PAVEMENT OR 2' BEHIND GUIDE RAIL. (DISTANCE TO CENTERLINE OF POLE) OR AS INDICATED ON THE PLANS.
11. ALL CONDUCTOR SPLICES IN CONCRETE HANDHOLES SHALL BE MADE WITH INSULATED SUBMERSIBLE CONNECTORS.
12. WHERE CONDUCTORS ARE TO BE PULLED INTO EXISTING OR NEW CONDUIT, THE COST OF FURNISHING AND INSTALLING THE PULL-LINE SHALL BE INCLUDED IN THE COST OF THE CONDUCTORS.
13. WHERE A HANDHOLE OR LIGHT STANDARD ANCHORAGE IS INSTALLED ADJACENT TO A BRIDGE WINGWALL, THE CONTRACTOR SHALL EXTEND THE EXISTING RMC SWEEP FROM THE WINGWALL TO THE HANDHOLE/FOUNDATION.
14. FOR EXISTING ILLUMINATION PLAN SEE STATE PROJECT 58-317.
15. EXISTING LIGHTING CIRCUITRY IS 480v, 3P, 3 WIRE. CONTROL CABINET IS LOCATED AT THE INTERSECTION OF WINTHROP ROAD AND ROUTE 1 IN GROTON.

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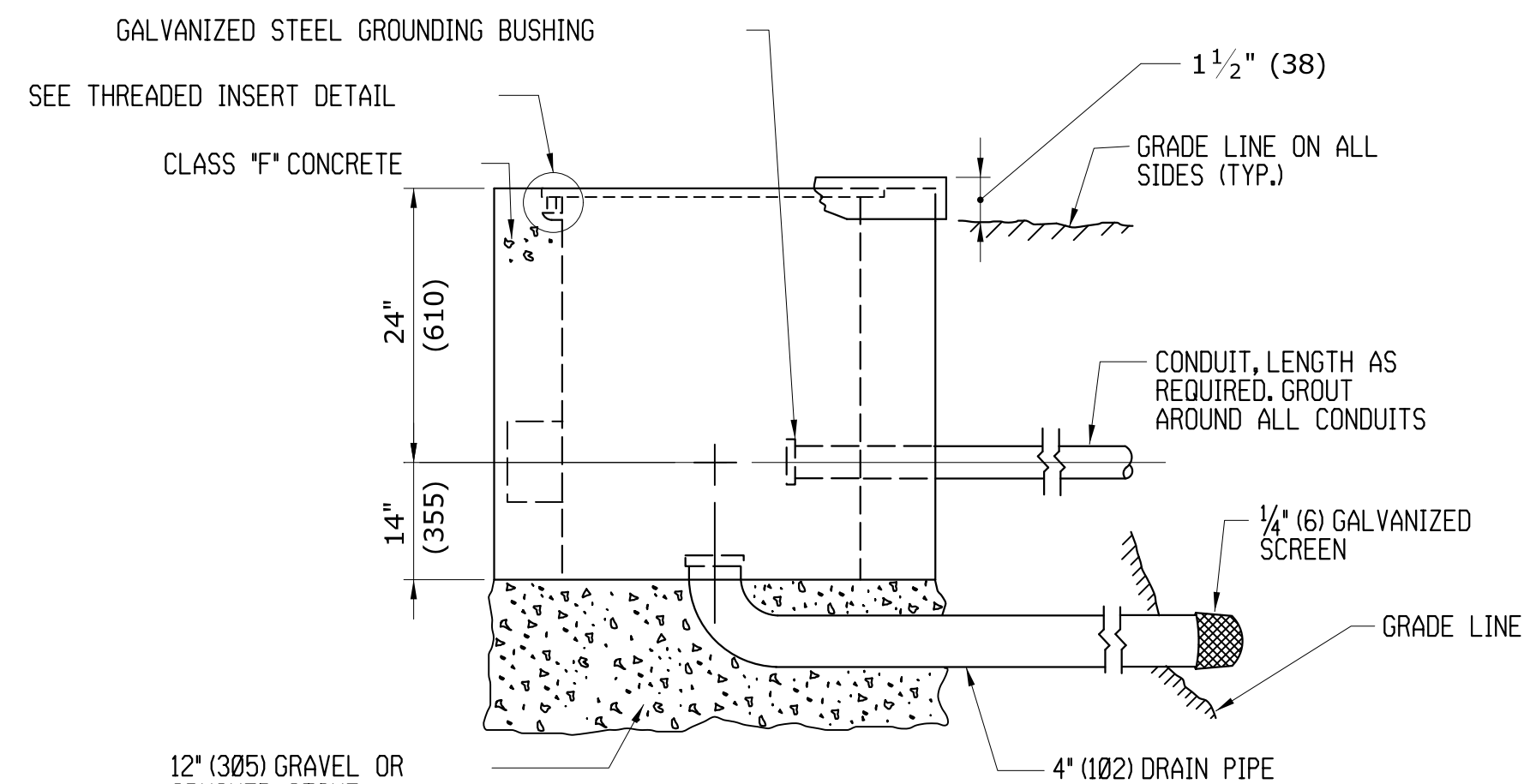




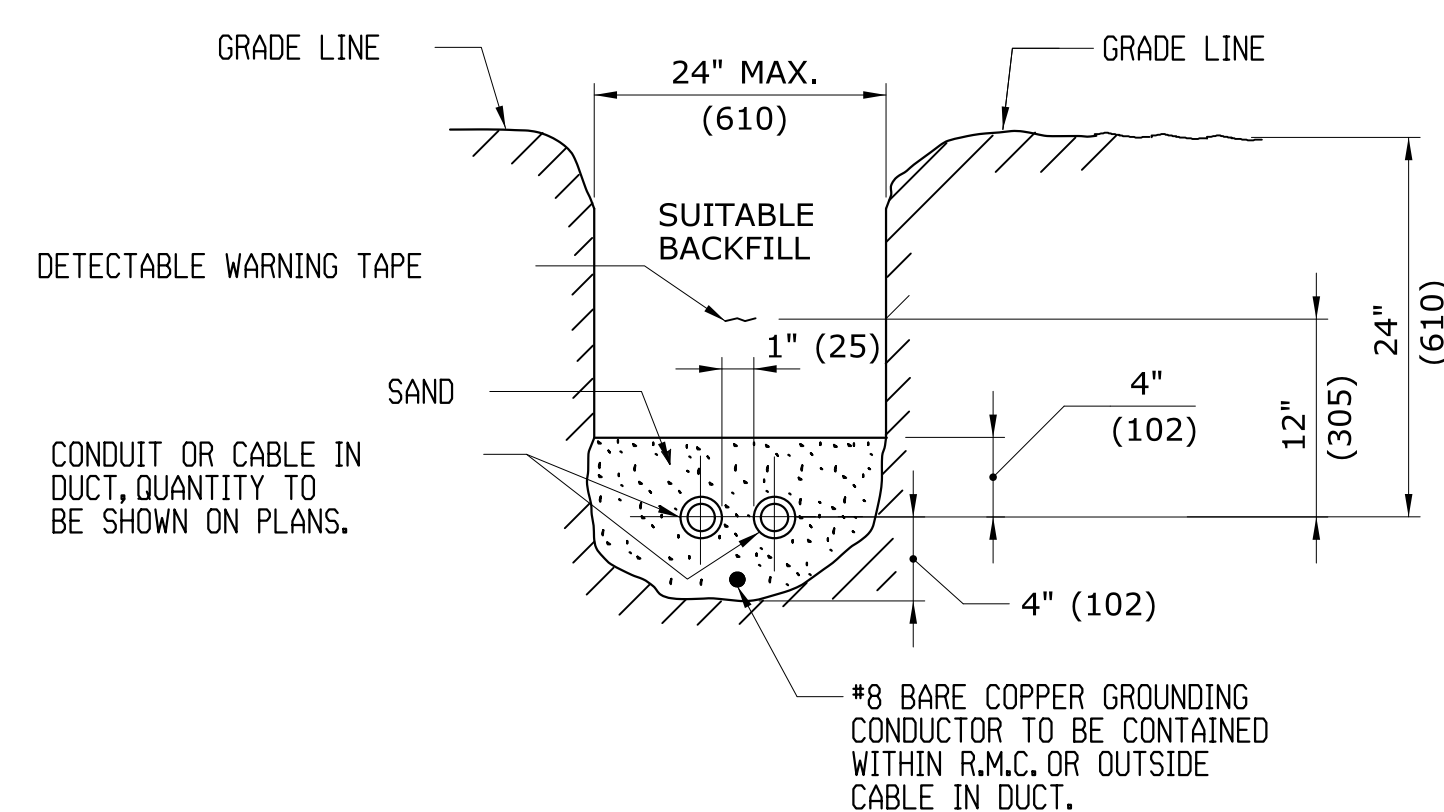
- NOTES:
- ALL ILLUMINATION EQUIPMENT IS NEW, EXCEPT AS NOTED.
  - SEE ILL-02 FOR DRAWING NOTES AND LEGEND.

90% SUBMISSION 03/09/2016

				DESIGNER/DRAFTER: <b>NMA</b> CHECKED BY: <b>MWD</b> SCALE IN FEET 0 40 80 SCALE 1"=40'	 <b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b> Filename: ...\\TR_MSH_058-332-ILL_03_TR_Sheet_0058-0332.dgn	 <b>VN ENGINEERS INC.</b> Traffic • Infrastructure • Planning 116 WASHINGTON AVENUE   NORTH HAVEN, CT 06473   203.234.7862	PROJECT TITLE: <b>RECONSTRUCTION OF ROUTE 349 NB AND SB OVER AMTRAK RAILROAD</b>	TOWN: <b>GROTON</b> DRAWING TITLE: <b>ILLUMINATION PLAN</b>	PROJECT NO. <b>58-332</b> DRAWING NO. <b>ILL-03</b> SHEET NO.
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 3/2/2016					

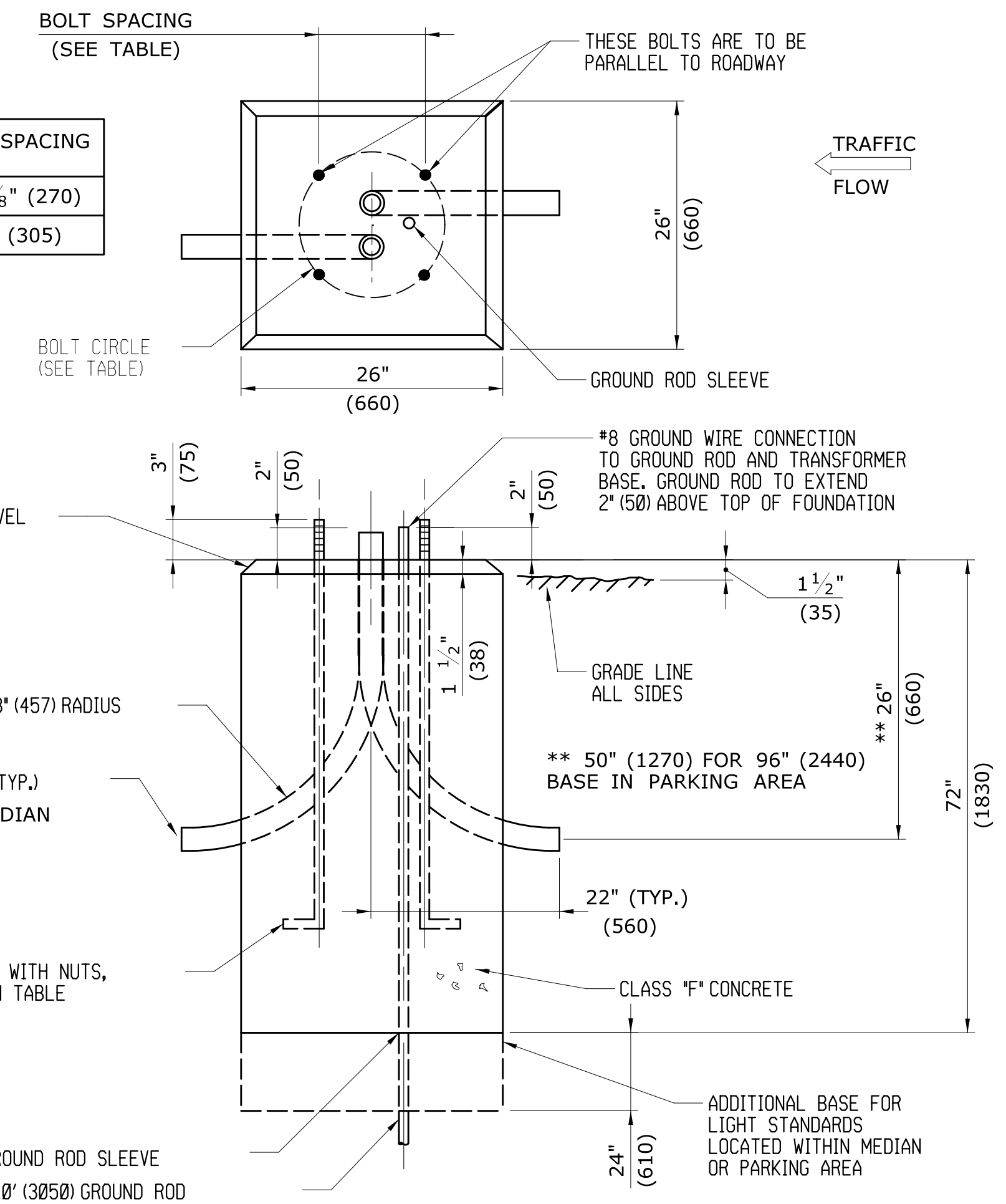


## CONCRETE HANDHOLE - TYPE I





## BURIED CONDUIT OR CABLE IN DUCT

BOLT CIRCLE DIAMETER	BOLT SPACING
15" (380)	10 5/8" (270)
17" (432)	12" (305)

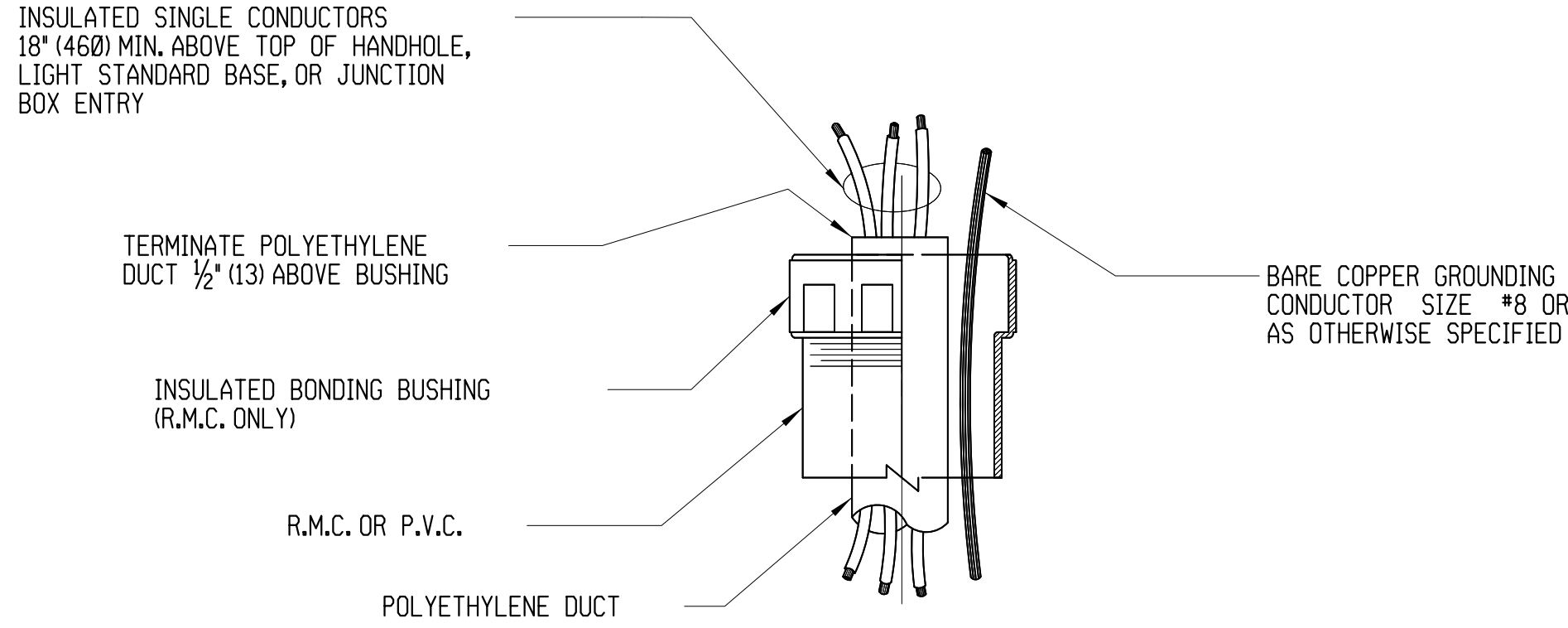


### LIGHT STANDARD FOUNDATION (TYPE I)

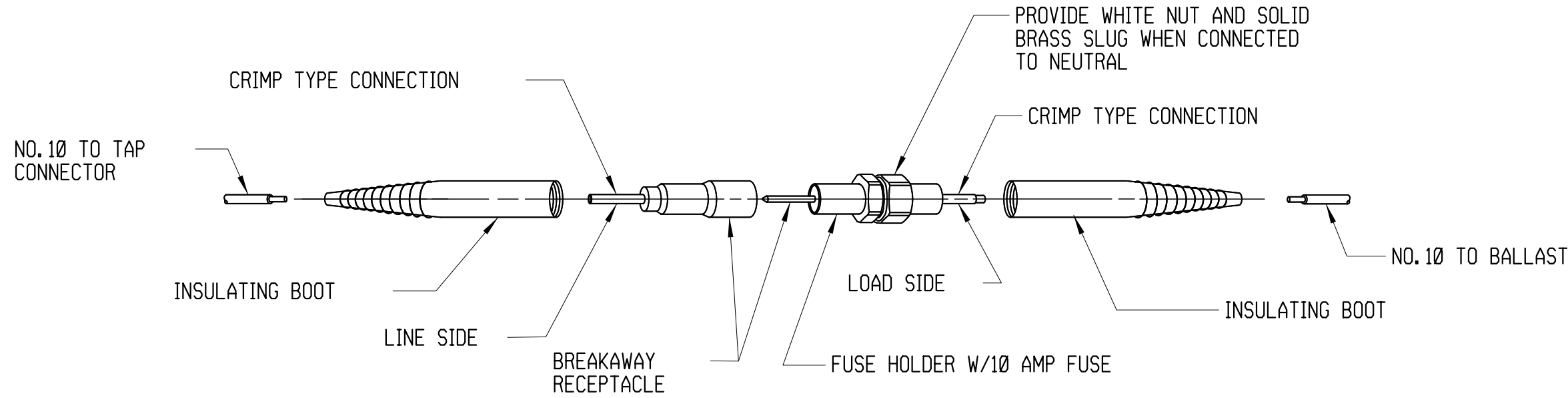
**90% SUBMISSION 03/09/2016**

					DESIGNER/DRAFTER: <b>NMA</b>		 <b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b>	 <b>VN ENGINEERS INC.</b> Traffic • Infrastructure • Planning 116 WASHINGTON AVENUE   NORTH HAVEN, CT 06471   203.234.7862	SIGNATURE/ BLOCK:	PROJECT TITLE:  <b>RECONSTRUCTION OF ROUTE 349</b> <b>NB AND SB OVER</b> <b>AMTRAK RAILROAD</b>	TOWN:  <b>GROTON</b>	PROJECT NO. <b>58-332</b>	
					CHECKED BY: <b>MWD</b>								DRAWING NO. <b>ILL-04</b>
					NO SCALE								SHEET NO.
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.					Plotted Date: 3/2/2016		Filename: ...\\TR_MSH_058-332_ILL_04-05_TR_Design_0058-0332.dgn		DRAWING TITLE: <b>LIGHT STD. FOUNDATION</b> <b>AND HANDHOLE DETAIL</b>				
REV.	DATE	REVISION	DESCRIPTION	SHEET NO.									

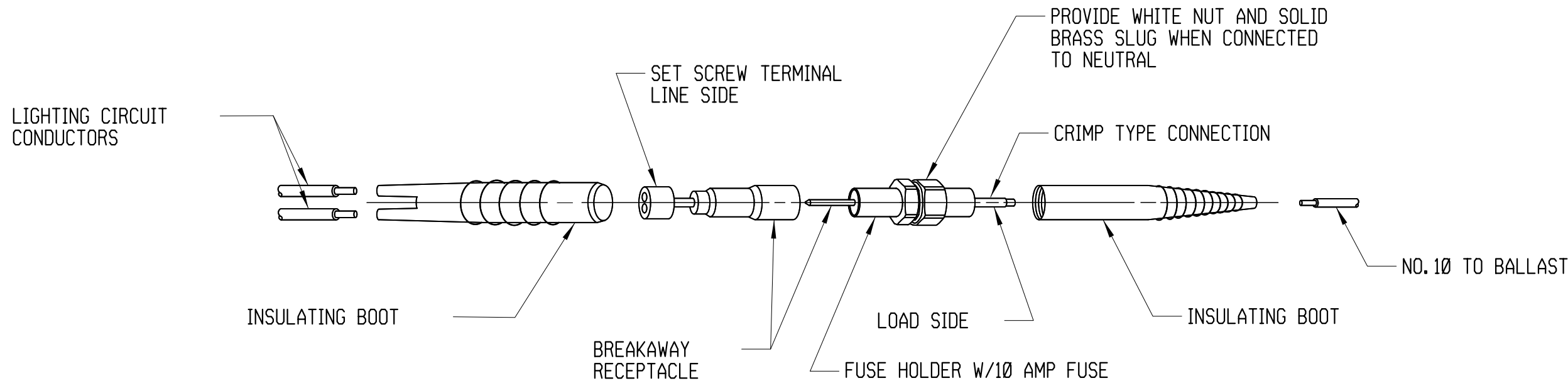




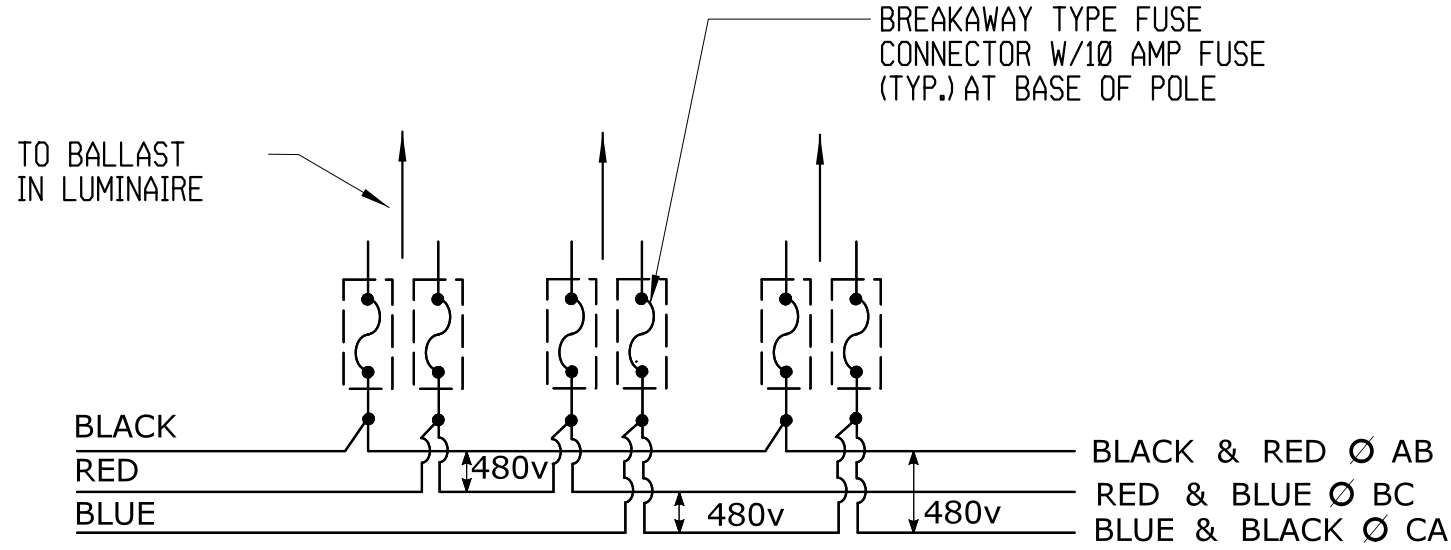
**CABLE IN DUCT TERMINATION AT LIGHT STANDARD BASE, HANDHOLE AND CAST IRON JUNCTION BOX**



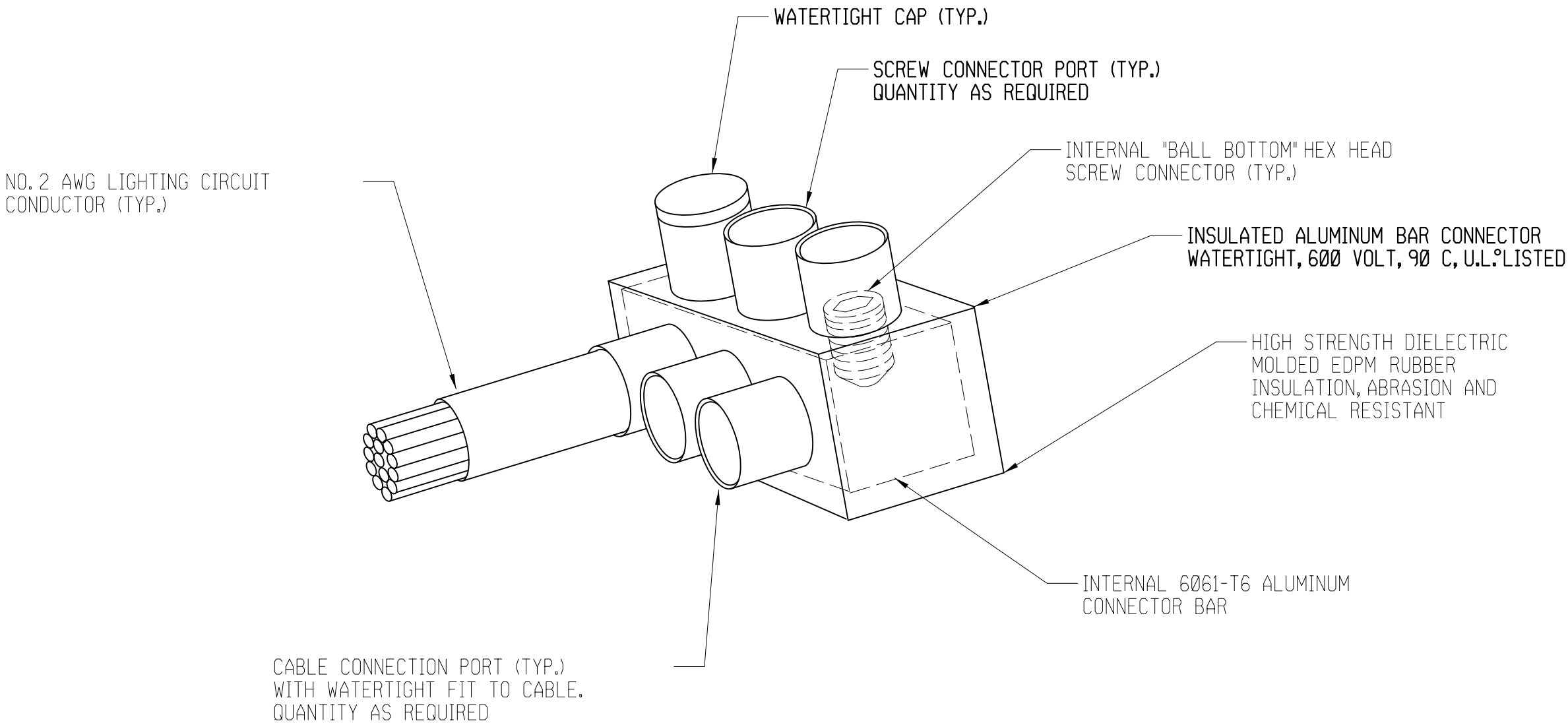
**BREAKAWAY TYPE FUSE CONNECTOR**  
TO BE USED WITH TWIN LUMINAIRE LIGHT STANDARDS (4 REQUIRED PER LIGHT STANDARD) AND UNDERBRIDGE LUMINAIRES



**BREAKAWAY TYPE FUSE CONNECTOR**



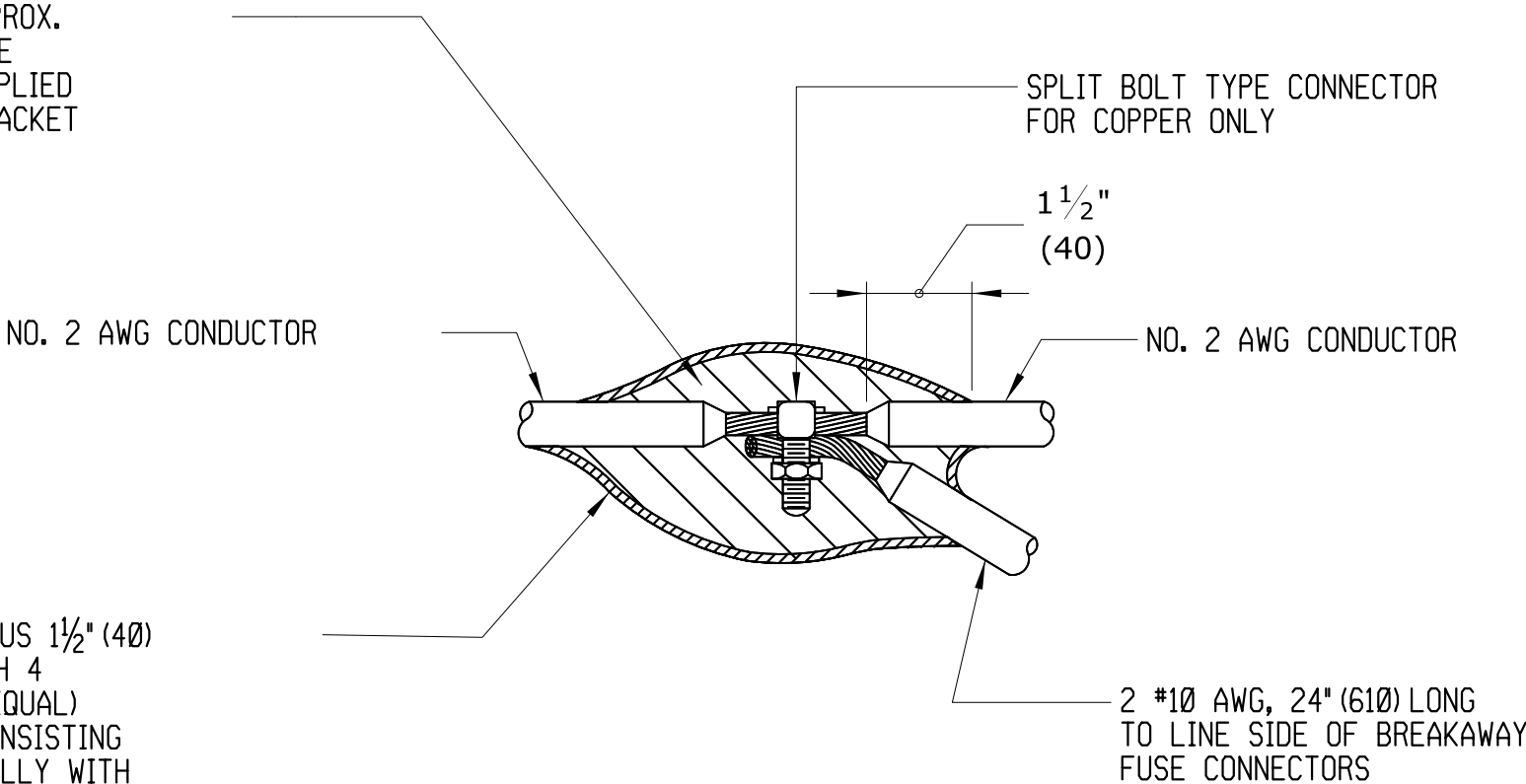
**3 PHASE 3 WIRE SYSTEM**



**WATERTIGHT CONNECTOR**

TO BE USED IN HANDHOLES AND JUNCTION BOXES



APPLY RUBBER SPLICING TAPE WITH APPROX. 50% OVERLAP TO A THICKNESS OVER THE CONNECTOR 1½ TIMES THE FACTORY APPLIED INSULATION AND TAPER DOWN TO THE JACKET AT A POINT APPROX. 1½\"/>



**TAP CONNECTOR**

TO BE USED W/TWIN LUMINAIRE LIGHT STANDARDS

**90% SUBMISSION 03/09/2016**

						THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: <b>NMA</b>		 <b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b>		 <b>VN ENGINEERS INC.</b> Traffic • Infrastructure • Planning 116 WASHINGTON AVENUE   NORTH HAVEN, CT 06473   203.234.7862		PROJECT TITLE: <b>RECONSTRUCTION OF ROUTE 349</b> <b>NB AND SB OVER</b> <b>AMTRAK RAILROAD</b>		TOWN: <b>GROTON</b>		PROJECT NO. <b>58-332</b>	
						CHECKED BY: <b>MWD</b>		DRAWING NO. <b>ILL-05</b>											
						NO SCALE		SHEET NO.											
REV.	DATE	REVISION DESCRIPTION		SHEET NO.	Plotted Date: 3/2/2016			Filename: ...\\TR_MSH_058-332_ILL_04-05_TR.Design_0058-0332.dgn											